



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

PUBLIC SERVICE ELECTRIC & GAS COMPANY

ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-354

HOPE CREEK GENERATING STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 87
License No. NPF-57

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for amendment filed by the Public Service Electric & Gas Company (PSE&G) dated November 23, 1994, as supplemented by letter dated August 31, 1995, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-57 is hereby amended to read as follows:

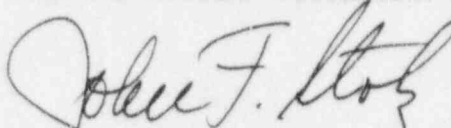
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(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 87, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into the license. PSE&G shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. The license amendment is effective as of its date of issuance and shall be implemented within 60 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Director
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 31, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 87

FACILITY OPERATING LICENSE NO. NPF-57

DOCKET NO. 50-354

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

<u>Remove</u>	<u>Insert</u>
3/4 8-13	3/4 8-13
3/4 8-14	3/4 8-14
3/4 8-15	3/4 8-15
3/4 8-16	3/4 8-16
B 3/4 8-2	B 3/4 8-2

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS

4.8.2.1 Each of the above required batteries and chargers shall be demonstrated OPERABLE:

- a. At least once per 7 days by verifying that:
 - 1. The parameters in Table 4.8.2.1-1 meet the Category A limits, and
 - 2. Total battery terminal voltage for each 125-volt battery is greater than or equal to 129 volts on float charge and for each 250-volt battery the terminal voltage is greater than or equal to 258 volts on float charge.

- b. At least once per 92 days and within 7 days after a battery discharge with battery terminal voltage below 108 volts for a 125-volt battery or 210 volts for a 250-volt battery, or battery overcharge with battery terminal voltage above 140 volts for a 125-volt battery or 280 volts for a 250-volt battery, by verifying that:
 - 1. The parameters in Table 4.8.2.1-1 meet the Category B limits,
 - 2. There is no visible corrosion at either terminals or connectors, or the connection resistance of these items is less than 150×10^{-6} ohms, excluding cable intercell connections, and
 - 3. The average electrolyte temperature of each sixth cell of connected cells is above 60°F.

- c. At least once per 18 months by verifying that:
 - 1. The cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration,
 - 2. The cell-to-cell and terminal connections are clean, tight, free of corrosion and coated with anti-corrosion material,
 - 3. The resistance of each cell-to-cell and terminal connection is less than or equal to 150×10^{-6} ohms, excluding cable intercell connections, and
 - 4. The battery charger will supply the current listed below at the voltage listed below for at least 8 hours.

<u>CHARGER</u>	<u>Minimum Voltage</u>	<u>CURRENT (AMPERES)</u>
1AD413, 1AD414	129	200
1BD413, 1BD414		
1CD413, 1CD414		
1CD444, 1DD414		
1DD444, 1DD413		
10D423, 10D433	258	50

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- d. At least once per 18 months, during shutdown, by verifying that the battery capacity is adequate to supply and maintain in OPERABLE status all of the actual or simulated emergency loads for the design duty cycle when the battery is subjected to a battery service test.
- e. At least once per 60 months, during shutdown, by verifying that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. At this once per 60 month interval, this performance discharge test may be performed in lieu of the battery service test.
- f. At least once per 18 months, during shutdown, performance discharge tests of battery capacity shall be given to any battery that shows signs of degradation or has reached 85% of the service life expected for the application. Degradation is indicated when the battery capacity drops more than 10% of rated capacity from its average on previous performance tests, or is below 90% of the manufacturer's rating. At this once per 18 months interval, this performance discharge test may be performed in lieu of the battery service test.

TABLE 4.8.2.1-1

BATTERY SURVEILLANCE REQUIREMENTS

PARAMETER	CATEGORY A: (*) LIMITS FOR EACH DESIGNATED PILOT CELL	CATEGORY B: (*) LIMITS FOR EACH CONNECTED CELL	CATEGORY C: (#) ALLOWABLE VALUE FOR EACH CONNECTED CELL
Electrolyte Level	≥Minimum level indication mark and <¼" above maximum level indication mark ^(d)	≥Minimum level indication mark and ≤¼" above maximum level indication mark ^(d)	Above top of plates and not overflowing
Float Voltage	≥2.13 volts	≥2.13 volts ^(c)	>2.07 volts
Specific Gravity ^(a)	≥1.200 ^(b)	≥1.195 AND Average of all connected cells >1.205 ^(b)	Not more than .020 below the average of all connected cells AND Average of all connected cells ≥1.195 ^(b)

(*) With parameters of one or more cells in one or more batteries not within limits (i.e., Category A, Category B or Category A and B limits not met), the battery may be considered OPERABLE provided that:

1. Within 1 hour, pilot cell electrolyte levels and float voltages are verified to meet Category C Allowable Values, AND
2. Within 24 hours, and once per 7 days thereafter, all battery cell parameters meet Category C Allowable Values, AND
3. Within 31 days, all battery cell parameters are restored to within Category A and Category B limits of this Table.

(#) Any Category C parameter not within its Allowable Value indicates an inoperable battery.

(a) Corrected for electrolyte temperature and level.

(b) OR battery charging current is less than 2 amperes when on float charge.

(c) May be corrected for average electrolyte temperature.

(d) Electrolyte level may exceed ¼" above maximum level indication mark if an equalizing charge is in progress, or an equalizing charge has been completed within the previous 72 hours.

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ELECTRICAL POWER SYSTEMS

BASES

A.C. SOURCES, D.C. SOURCES and ONSITE POWER DISTRIBUTION SYSTEMS (Continued)

The surveillance requirements for demonstrating the OPERABILITY of the unit batteries are in accordance with the recommendations of Regulatory Guide 1.129 "Maintenance Testing and Replacement of Large Lead Storage Batteries for Nuclear Power Plants", February 1978 and IEEE Std 450-1980, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Generating Stations and Substations."

Verifying average electrolyte temperature above the minimum for which the battery was sized, total battery terminal voltage on float charge, connection resistance values and the performance of battery service and discharge tests ensures the effectiveness of the charging system, the ability to handle high discharge rates and compares the battery capacity at that time with the rated capacity.

Table 4.8.2.1-1 specifies the normal limits for each designated pilot cell and each connected cell for electrolyte level, float voltage and specific gravity. The limits for the designated pilot cells float voltage and specific gravity, greater than 2.13 volts and .015 below the manufacturer's full charge specific gravity or a battery charger current that had stabilized at a low value, is characteristic of a charged cell with adequate capacity. The normal limits for each connected cell for float voltage and specific gravity, greater than 2.13 volts and not more than .020 below the manufacturer's full charge specific gravity with an average specific gravity of all the connected cells not more than .010 below the manufacturer's full charge specific gravity, ensures the OPERABILITY and capability of the battery.

Operation with a battery cell's parameter outside the normal limit but within the allowable value specified in Table 4.8.2.1-1 is permitted for up to 31 days. During this 31 day period: (1) the allowable values for electrolyte level ensures no physical damage to the plates with an adequate electron transfer capability; (2) the allowable value for the average specific gravity of all the cells, not more than .020 below the manufacturer's recommended full charge specific gravity ensures that the decrease in rating will be less than the safety margin provided in sizing; (3) the allowable value for an individual cell's specific gravity, ensures that an individual cell's specific gravity will not be more than .040 below the manufacturer's full charge specific gravity and that the overall capability of the battery will be maintained within an acceptable limit; (4) the allowable value for an individual cell's float voltage, greater than 2.07 volts, ensures the battery's capability to perform its design function; (5) the TABLE 4.8.2.1-1 NOTATION 31 day ACTION time was derived taking into consideration that while battery capacity is degraded, sufficient capacity exists to perform the intended function while providing a time period adequate to permit full restoration of the battery cell parameters to normal limits.